

**PATENT COOPERATION TREATY**  
**PCT**  
**INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**  
(Chapter II of the Patent Cooperation Treaty)  
(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 040854PC/GC/RG	<b>FOR FURTHER ACTION</b>	See Form PCT/IPEA/416
International application No. <b>PCT/AU2004/001001</b>	International filing date ( <i>day/month/year</i> ) 27 July 2004	Priority date ( <i>day/month/year</i> ) 28 July 2003
International Patent Classification (IPC) or national classification and IPC Int. Cl. <sup>7</sup> B65D 83/62, 83/66, 83/14, 81/32, 77/06		
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( This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 6 sheets, including this cover sheet.

3. This report is also accompanied by ANNEXES, comprising:

a. ☒ (sent to the applicant and to the International Bureau) a total of 2 sheets, as follows:

☒ sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).

☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.

b. ☐ (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or table related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:

<input checked="" type="checkbox"/>	Box No. I	Basis of the report
<input type="checkbox"/>	Box No. II	Priority
<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
<input checked="" type="checkbox"/>	Box No. IV	Lack of unity of invention
<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
<input type="checkbox"/>	Box No. VI	Certain documents cited
<input type="checkbox"/>	Box No. VII	Certain defects in the international application
<input checked="" type="checkbox"/>	Box No. VIII	Certain observations on the international application

Date of submission of the demand 28 February 2005	Date of completion of the report 20 October 2005
Name and mailing address of the IPEA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaaustralia.gov.au Facsimile No. (02) 6285 3929	Authorized Officer  M.S. HAYNES Telephone No. (02) 6283 2170

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/AU2004/001001

**Box No. I**      **Basis of the report**

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1 (b))
  - ☐ publication of the international application (under Rule 12.4)
  - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:
- ☐ the international application as originally filed/furnished
- ☒ the description:
- pages 1-24 as originally filed/furnished
  - pages\* received by this Authority on with the letter of
  - pages\* received by this Authority on with the letter of
- ☒ the claims:
- pages as originally filed/furnished
  - pages\* as amended (together with any statement) under Article 19
  - pages\* 25-26 received by this Authority on 13 September 2005 with the letter of 13 September 2005
  - pages\* received by this Authority on with the letter of
- ☒ the drawings:
- pages 1-5 as originally filed/furnished
  - pages\* received by this Authority on with the letter of
  - pages\* received by this Authority on with the letter of
- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing.
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages
  - ☐ the claims, Nos.
  - ☐ the drawings, sheets/figs
  - ☐ the sequence listing (*specify*):
  - ☐ any table(s) related to the sequence listing (*specify*):
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages
  - ☐ the claims, Nos.
  - ☐ the drawings, sheets/figs
  - ☐ the sequence listing (*specify*):
  - ☐ any table(s) related to the sequence listing (*specify*):

\* If item 4 applies, some or all of those sheets may be marked "superseded."

**Box No. IV Lack of unity of invention**

1. ☒ In response to the invitation to restrict or pay additional fees the applicant has:

☐ restricted the claims.

☐ paid additional fees.

☐ paid additional fees under protest.

☒ neither restricted nor paid additional fees.

2. ☐ This Authority found that the requirement of unity of invention is not complied with and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees.

3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is:

☐ complied with.

☒ not complied with for the following reasons:

The international application does not comply with the requirements of unity of invention because it does not relate to one invention or to a group of inventions so linked as to form a single general inventive concept. In coming to this conclusion the International Searching Authority has found that there are different inventions as follows:

1. Claims 1-8 are directed to a spray applicator comprising an applicator having a first containing portion for containing a first constituent of the mixture, and at least one second containing portion for releasably containing a further constituent of the mixture, wherein at least the further constituent may mix with the first constituent to form a mixture.

It is considered that this spray applicator for containing, mixing and releasing comprises a first "special technical feature".

2. Claim 9 is directed to a spray applicator which comprises a container for containing at least one fluid to be sprayed which includes an internal agitation means and a drive means separate from but engageable with the agitation means.

It is considered that this spray applicator with the internal agitation means comprises a second "special technical feature".

continued on supplemental sheet

4. Consequently, this report has been established in respect of the following parts of the international application:

☐ all parts.

☒ the parts relating to claims Nos. 1-8

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/AU2004/001001

**Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1. Statement**

Novelty (N)	Claims 1-8	YES
	Claims	NO
Inventive step (IS)	Claims 1-8	YES
	Claims	NO
Industrial applicability (IA)	Claims 1-8	YES
	Claims	NO

**2. Citations and explanations (Rule 70.7)****NOVELTY (N) & INVENTIVE STEP (IS) Claims 1-8**

The invention defined by the amended claims is a spray applicator for containing, mixing and releasing constituents of a reactive mixture which comprises a first compartment & at least a second compartment, wherein the constituents of the two compartments can be mixed together before being released from the spray applicator. In particular an expulsion member is manipulated to open the at least one second containing portion and forcibly expel the second constituent portion to mix with the first constituent.

The closest art mentioned in the International Search Report is US 4635822 A which discloses an apparatus for spraying which contains at least two separate compartments, one of the compartments being ruptured by a pin on the bottom of the container that allows the two previously separate mixtures to mix together. The mixed solution is then dispensed from the container.

No individual citation or obvious combination of citations disclose this arrangement.

Claims 1-8 are therefore novel and have inventive step.

**Box No. VIII** Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

On page 19 line 13 "expulsion member 28" should be item 2, on page 19 line 15 "expulsion member 4" should be item 2, on page 19 line 16 "expulsion member 28" should be item 2, page 19 line 18 "expulsion member 28" should be item 4

**Supplemental Box**

In case the space in any of the preceding boxes is not sufficient.

Continuation of: Box IV

3. Claim 10 is directed to a spray applicator which comprises a container, activation means, a container closure engageable with the container which includes a fluid opening, at least one reservoir for containing a further constituent in fluid communication with the fluid opening and a mixing valve to control the flow of the further constituent from the at least one reservoir. It is considered that the container, activation means & container closure comprises a third "special technical feature".

Since the abovementioned groups of claims do not share either of the technical features identified, a "technical relationship" between the inventions, as defined in PCT rule 13.2 does not exist. Accordingly the international application does not relate to one invention or to a single inventive concept.

**Claims**

1. A spray applicator for containing, mixing and releasing constituents of a reactive mixture, the applicator having
  - i. a first containing portion for containing a first constituent of the mixture; and
  - 5 ii. at least one second containing portion for releasably containing a further constituent of the mixture, and
  - iii. an expulsion member for forcibly expelling the further constituent from the at least one second containing portion,wherein each at least one second containing portion is operable between a first,  
10 unmixed condition in which the second constituent is retained separately from the first constituent and a second mixing condition in which the expulsion member is manipulated to open the at least one second containing portion and forcibly expel the second constituent from the second containing portion to mix with the first constituent.
- 15 2. A spray applicator according to claim 1 further comprising an opening provided in a lower portion of the container and an activation means for moving the second containing portion between the first, unmixed condition in which the second constituent is retained separately from the first constituent and the second mixing condition.
- 20 3. A spray applicator according to claim 1 wherein the first containing portion is a pressurised can.
4. A spray applicator according to claim 3 wherein the second containing portion is located toward a lower portion or bottom of the pressurised can.
5. A spray applicator according to claim 1 wherein the second containing portion  
25 is a pouch or sac and is located abutting or resting against the bottom of the can.
6. A spray applicator according to claim 5 wherein the bag or sac second containing portion is rupturable to release the further constituent.
7. A spray applicator according to claim 6 wherein the expulsion member is associated with the activation means to move the expulsion member between a first  
30 condition in which the expulsion member is spaced from the bottom of the can, with the pouch or sac between the expulsion member and the bottom of the can, and a second condition in which the expulsion member is forced toward the bottom of the

can, with the pouch or sac between the expulsion member, forcing the expulsion of the further constituent from the pouch or sac.

8. A spray applicator according to claim 7 wherein the activation means includes the expulsion member having a threaded projecting portion extending into the bottom of the can and rotation of the activation means moves the expulsion member between the first and second conditions.

9. A spray applicator having,

i. at least one container for containing at least one fluid to be sprayed, one of the containers having an internal agitation means to agitate the at least one fluid, and

ii. drive means separate from but engageable with the agitation means, the drive means adapted to engage the agitation means magnetically to drive the agitation means within the container.

10. A spray applicator for containing, mixing and releasing constituents of a reactive mixture, the applicator having

i. a container for containing a first constituent of the mixture;

ii. activation means to release the first constituent from the container;

iii. a container closure engageable with the container, the container closure comprising

a. a fluid opening through which fluid can flow, the fluid opening in fluid communication with the container,

b. at least one reservoir for containing a further constituent in fluid communication with the fluid opening, and

c. a mixing valve to control the flow of the further constituent from the at least one reservoir,

wherein upon operation of the activation means the further constituent is drawn from the at least one reservoir by the flow of the first constituent and the further constituent mixes with the first constituent, prior to exiting the container closure.